

SEQUENCE LISTING

70400
<110> Del Vecchio, Alfred

<120> HEPATITIS C VIRUS NS5B TRUNCATED PROTEIN
AND METHODS THEREOF TO IDENTIFY ANTIVIRAL COMPOUNDS

<130> P50743

<140> Not Yet Assigned

<141> 1998-12-11

<160> 34

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 1710

<212> DNA

<213> Viral

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ccaatcattc aaagactcca tggcctcagc gcatttttac tccacagtta ctctccaggt      1440
gaagtcaata ggggtggcgc atgcctcaga aaacttgggg tcccgcctt gcgagcttgg      1500
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<210> 2

<211> 591

<212> PRT

<213> Viral

<400> 2

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      20                      25                      30
His His Asn Leu Val Tyr Ser Thr Thr Ser Arg Ser Ala Cys Gln Arg
      35                      40                      45
Gln Lys Lys Val Thr Phe Asp Arg Leu Gln Val Leu Asp Ser His Tyr
      50                      55                      60
Gln Asp Val Leu Lys Glu Val Lys Ala Ala Ala Ser Lys Val Lys Ala
      65                      70                      75                      80
Asn Leu Leu Ser Val Glu Glu Ala Cys Ser Leu Thr Pro Pro His Ser
      85                      90                      95
Ala Lys Ser Lys Phe Gly Tyr Gly Ala Lys Asp Val Arg Cys His Ala
      100                      105                      110
Arg Lys Ala Val Ala His Ile Asn Ser Val Trp Lys Asp Leu Leu Glu
      115                      120                      125
Asp Ser Val Thr Pro Ile Asp Thr Thr Ile Met Ala Lys Asn Glu Val
      130                      135                      140
Phe Cys Val Gln Pro Glu Lys Gly Gly Arg Lys Pro Ala Arg Leu Ile
      145                      150                      155                      160
Val Phe Pro Asp Leu Gly Val Arg Val Cys Glu Lys Met Ala Leu Tyr
      165                      170                      175

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Glu Ala Ile Tyr Gln Cys Cys Asp Leu Asp Pro Gln Ala Arg Val Ala
 260 265 270
 Ile Lys Ser Leu Thr Glu Arg Leu Tyr Val Gly Gly Pro Leu Thr Asn
 275 280 285
 Ser Arg Gly Glu Asn Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val
 290 295 300
 Leu Thr Thr Ser Cys Gly Asn Thr Leu Thr Cys Tyr Ile Lys Ala Arg
 305 310 315 320
 Ala Ala Cys Arg Ala Ala Gly Leu Gln Asp Cys Thr Met Leu Val Cys
 325 330 335
 Gly Asp Asp Leu Val Val Ile Cys Glu Ser Ala Gly Val Gln Glu Asp
 340 345 350
 Ala Ala Ser Leu Arg Ala Phe Thr Glu Ala Met Thr Arg Tyr Ser Ala
 355 360 365
 Pro Pro Gly Asp Pro Pro Gln Pro Glu Tyr Asp Leu Glu Leu Ile Thr
 370 375 380
 Ser Cys Ser Ser Asn Val Ser Val Ala His Asp Gly Ala Gly Lys Arg
 385 390 395 400
 Val Tyr Tyr Leu Thr Arg Asp Pro Thr Thr Pro Leu Ala Arg Ala Ala
 405 410 415
 Trp Glu Thr Ala Arg His Thr Pro Val Asn Ser Trp Leu Gly Asn Ile
 420 425 430
 Ile Met Phe Ala Pro Thr Leu Trp Ala Arg Met Ile Leu Met Thr His
 435 440 445
 Phe Phe Ser Val Leu Ile Ala Arg Asp Gln Leu Glu Gln Ala Leu Asn
 450 455 460
 Cys Glu Ile Tyr Gly Ala Cys Tyr Ser Ile Glu Pro Leu Asp Leu Pro
 465 470 475 480
 Pro Ile Ile Gln Arg Leu His Gly Leu Ser Ala Phe Ser Leu His Ser
 485 490 495
 Tyr Ser Pro Gly Glu Ile Asn Arg Val Ala Ala Cys Leu Arg Lys Leu
 500 505 510
 Gly Val Pro Pro Leu Arg Ala Trp Arg His Arg Ala Arg Ser Val Arg
 515 520 525
 Ala Arg Leu Leu Ser Arg Gly Gly Arg Ala Ala Ile Cys Gly Lys Tyr
 530 535 540
 Leu Phe Asn Trp Ala Val Arg Thr Lys Leu Lys Leu Thr Pro Ile Ala
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 Ala Ala Gly Arg Leu Asp Leu Ser Gly Trp Phe Thr Ala Gly Tyr Ser
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 Gly Gly Asp Ile Tyr His Ser Val Ser His Ala Arg Pro Arg
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<210> 5
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 <213> Viral

<400> 5
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 Asp Ile Tyr His Ser Val Ser Arg Ala Arg Pro Arg Leu Leu Leu Leu
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 Gly Leu Leu Leu Leu Cys Val Gly Val Gly Ile Phe Leu Leu Pro Ala
 35 40 45
 Arg

<210> 6
 <211> 49
 <212> PRT
 <213> Viral

<400> 6
 Arg Leu Leu Asp Leu Ser Ser Trp Phe Thr Val Gly Ala Gly Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Val Ser Arg Ala Arg Pro Arg Leu Leu Leu Leu
 20 25 30
 Gly Leu Leu Leu Leu Phe Val Gly Val Gly Leu Phe Leu Leu Pro Ala
 35 40 45
 Arg

<210> 7
 <211> 49
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 <213> Viral

<400> 7
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 1 5 10 15
 Asp Ile Tyr His Ser Val Ser His Ala Arg Pro Arg Leu Leu Leu Leu
 20 25 30

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Phe	Gln	Tyr	Ser	Pro	Gly	Gln	Arg	Val	Glu	Phe	Leu	Val	Gln	Ala	Trp	195	200	205
Lys	Ser	Lys	Lys	Thr	Pro	Met	Gly	Phe	Ser	Tyr	Asp	Thr	Arg	Cys	Phe	210	215	220
Asp	Ser	Thr	Val	Thr	Glu	Ser	Asp	Ile	Arg	Thr	Glu	Glu	Ala	Ile	Tyr	225	230	235
Gln	Cys	Cys	Asp	Leu	Asp	Pro	Gln	Ala	Arg	Val	Ala	Ile	Lys	Ser	Leu	245	250	255
Thr	Glu	Arg	Leu	Tyr	Val	Gly	Gly	Pro	Leu	Thr	Asn	Ser	Arg	Gly	Glu	260	265	270
Asn	Cys	Gly	Tyr	Arg	Arg	Cys	Arg	Ala	Ser	Gly	Val	Leu	Thr	Thr	Ser	275	280	285
Cys	Gly	Asn	Thr	Leu	Thr	Cys	Tyr	Ile	Lys	Ala	Arg	Ala	Ala	Cys	Arg	290	295	300
Ala	Ala	Gly	Leu	Gln	Asp	Cys	Thr	Met	Leu	Val	Cys	Gly	Asp	Asp	Leu	305	310	315
Val	Val	Ile	Cys	Glu	Ser	Ala	Gly	Val	Gln	Glu	Asp	Ala	Ala	Ser	Leu	325	330	335
Arg	Ala	Phe	Thr	Glu	Ala	Met	Thr	Arg	Tyr	Ser	Ala	Pro	Pro	Gly	Asp	340	345	350
Pro	Pro	Gln	Pro	Glu	Tyr	Asp	Leu	Glu	Leu	Ile	Thr	Ser	Cys	Ser	Ser	355	360	365
Asn	Val	Ser	Val	Ala	His	Asp	Gly	Ala	Gly	Lys	Arg	Val	Tyr	Tyr	Leu	370	375	380
Thr	Arg	Asp	Pro	Thr	Thr	Pro	Leu	Ala	Arg	Ala	Ala	Trp	Glu	Thr	Ala	385	390	395
Arg	His	Thr	Pro	Val	Asn	Ser	Trp	Leu	Gly	Asn	Ile	Ile	Met	Phe	Ala	405	410	415
Pro	Thr	Leu	Trp	Ala	Arg	Met	Ile	Leu	Met	Thr	His	Phe	Phe	Ser	Val	420	425	430
Leu	Ile	Ala	Arg	Asp	Gln	Leu	Glu	Gln	Ala	Leu	Asn	Cys	Glu	Ile	Tyr	435	440	445
Gly	Ala	Cys	Tyr	Ser	Ile	Glu	Pro	Leu	Asp	Leu	Pro	Pro	Ile	Ile	Gln	450	455	460
Arg	Leu	His	Gly	Leu	Ser	Ala	Phe	Ser	Leu	His	Ser	Tyr	Ser	Pro	Gly	465	470	475
Glu	Ile	Asn	Arg	Val	Ala	Ala	Cys	Leu	Arg	Lys	Leu	Gly	Val	Pro	Pro	485	490	495
Leu	Arg	Ala	Trp	Arg	His	Arg	Ala	Arg	Ser	Val	Arg	Ala	Arg	Leu	Leu	500	505	510

Ser Arg Gly Gly Arg Ala Ala Ile Cys Gly Lys Tyr Leu Phe Asn Trp
 515 520 525
 Ala Val Arg Thr Lys Leu Lys Leu Thr Pro Ile Pro Ala Ala Gly Arg
 530 535 540
 Leu Asp Leu Ser Gly Trp Phe Thr Ala Gly Tyr Ser Gly Gly Asp Ile
 545 550 555 560
 Tyr His Ser Val Ser His Ala Arg Pro Arg Trp Phe Trp Phe Cys Leu
 565 570 575
 Leu Leu Leu Ala Ala Gly Val Gly Ile Tyr Leu Leu Pro Asn Arg
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<210> 3

<211> 1710

<212> DNA

<213> Viral

<400> 3

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<210> 4

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<212> PRT

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<400> 4

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          20          25          30
His His Asn Leu Val Tyr Ser Thr Thr Ser Arg Ser Ala Cys Gln Arg
          35          40          45
Gln Lys Leu Arg His His Asn Leu Val Tyr Ser Thr Thr Ser Arg Ser
          50          55          60
Ala Cys Gln Arg Gln Lys Lys Val Thr Phe Asp Arg Leu Gln Val Leu
65          70          75          80
Asp Ser His Tyr Gln Asp Val Leu Lys Glu Val Lys Ala Ala Ala Ser
          85          90          95
Lys Val Lys Ala Asn Leu Leu Ser Val Glu Glu Ala Cys Ser Leu Thr
          100          105          110
Pro Pro His Ser Ala Lys Ser Lys Phe Gly Tyr Gly Ala Lys Asp Val
          115          120          125
Arg Cys His Ala Arg Lys Ala Val Ala His Ile Asn Ser Val Trp Lys
          130          135          140
Asp Leu Leu Glu Asp Ser Val Thr Pro Ile Asp Thr Thr Ile Met Ala
145          150          155          160
Lys Asn Glu Val Phe Cys Val Gln Pro Glu Lys Gly Gly Arg Lys Pro
          165          170          175
Ala Arg Leu Ile Val Phe Pro Asp Leu Gly Val Arg Val Cys Glu Lys
          180          185          190
Met Ala Leu Tyr Asp Val Val Ser Lys Leu Pro Leu Ala Val Met Gly
          195          200          205
Ser Ser Tyr Gly Phe Gln Tyr Ser Pro Gly Gln Arg Val Glu Phe Leu
          210          215          220
Val Gln Ala Trp Lys Ser Lys Lys Thr Pro Met Gly Phe Ser Tyr Asp
225          230          235          240
Thr Arg Cys Phe Asp Ser Thr Val Thr Glu Ser Asp Ile Arg Thr Glu
          245          250          255

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Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Phe Leu Leu Pro Ala
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Arg

<210> 8
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<400> 8

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 1 5 10 15
 Gly Asp Ile Tyr His Ser Val Ser His Ala Arg Pro Arg Trp Phe Trp
 20 25 30
 Phe Cys Leu Leu Leu Leu Ala Ala Gly Val Gly Ile Tyr Leu Leu Pro
 35 40 45

Asn Arg

<210> 9
 <211> 49
 <212> PRT
 <213> Viral

<400> 9

Gly Arg Leu Asp Leu Ser Gly Trp Phe Thr Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Val Ser His Ala Arg Pro Arg Trp Phe Trp Phe
 20 25 30
 Cys Leu Leu Leu Leu Ala Ala Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45

Arg

<210> 10
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 <212> PRT
 <213> Viral

<400> 10

Gly Gln Leu Asp Leu Ser Gly Trp Phe Thr Ala Gly Tyr Ser Gly Gly
 1 5 10 15

Asp Ile Tyr His Ser Val Ser His Ala Arg Pro Arg Trp Ile Trp Phe
 20 25 30
 Cys Leu Leu Leu Leu Ala Ala Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 11
 <211> 49
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 <213> Viral

<400> 11
 Gly Arg Leu Asp Leu Ser Gly Trp Phe Thr Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Val Ser His Ala Arg Pro Arg Trp Phe Trp Phe
 20 25 30
 Cys Leu Leu Leu Leu Ala Ala Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 12
 <211> 49
 <212> PRT
 <213> Viral

<400> 12
 Ser Gln Leu Asp Leu Ser Ser Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Met Trp
 20 25 30
 Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 13
 <211> 49
 <212> PRT
 <213> Viral

<400> 13

Ser Gln Leu Asp Leu Ser Ser Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Met Trp
 20 25 30
 Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 14

<211> 49

<212> PRT

<213> Viral

<400> 14

Ser Gln Leu Asp Leu Ser Asn Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Val Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Met Leu
 20 25 30
 Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 15

<211> 49

<212> PRT

<213> Viral

<400> 15

Ser Gln Leu Asp Leu Ser Asn Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Val Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Met Leu
 20 25 30
 Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 16

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<212> PRT

<213> Viral

<400> 16

Ser	Gln	Leu	Asp	Leu	Ser	Lys	Trp	Phe	Val	Ala	Gly	Tyr	Gly	Gly	Gly
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Asp	Ile	Tyr	His	Ser	Leu	Ser	Arg	Ala	Arg	Pro	Arg	Trp	Phe	Met	Leu
			20					25						30	
Cys	Leu	Leu	Leu	Leu	Ser	Val	Gly	Val	Gly	Ile	Tyr	Leu	Leu	Pro	Asn
			35				40							45	

Arg

<210> 17

<211> 49

<212> PRT

<213> Viral

<400> 17

Ser	Arg	Leu	Asp	Leu	Ser	Gly	Trp	Phe	Val	Ala	Gly	Tyr	Ser	Gly	Gly
1				5					10					15	
Asp	Ile	Tyr	His	Ser	Leu	Ser	Arg	Ala	Arg	Pro	Arg	Trp	Phe	Met	Leu
			20					25						30	
Cys	Leu	Leu	Leu	Leu	Ser	Val	Gly	Val	Gly	Ile	Tyr	Leu	Leu	Pro	Asn
			35				40							45	

Arg

<210> 18

<211> 49

<212> PRT

<213> Viral

<400> 18

Ser	Arg	Leu	Asp	Leu	Ser	Gly	Trp	Phe	Val	Ala	Gly	Tyr	Ser	Gly	Gly
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Asp	Ile	Tyr	His	Ser	Leu	Ser	Arg	Ala	Arg	Pro	Arg	Trp	Phe	Met	Leu
			20					25						30	
Cys	Leu	Leu	Leu	Leu	Ser	Val	Gly	Val	Gly	Ile	Tyr	Leu	Leu	Pro	Asn
			35				40							45	

Arg

<210> 19
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 <212> PRT
 <213> Viral

<400> 19
 Ser Gln Leu Asp Leu Ser Gly Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Leu Leu
 20 25 30
 Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 20
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 1 5 10 15
 Asp Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Pro Leu
 20 25 30
 Cys Leu Leu Leu Leu Phe Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 21
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 Ser Gln Leu Asp Leu Ser Gly Trp Phe Val Ala Gly Tyr Asn Gly Gly
 1 5 10 15
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 20 25 30
 Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 22
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<400> 22

Ser Arg Leu Asp Leu Ser Gly Trp Phe Val Ala Gly Tyr Gly Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Met Leu
 20 25 30
 Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 23
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<400> 23

Ser Gln Leu Asp Leu Ser Gly Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Val Ser Arg Ala Arg Pro Arg Trp Phe Met Trp
 20 25 30
 Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

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<400> 24

Ser Gln Leu Asp Leu Ser Gly Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Val Ser Arg Ala Arg Pro Arg Trp Phe Met Trp
 20 25 30

Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45

Arg

<210> 25
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<400> 25

Ser Gln Leu Asp Leu Ser Ser Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15

Asp Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Met Trp
 20 25 30

Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45

Arg

<210> 26
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<400> 26

Ser Gln Leu Asp Leu Ser Gly Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15

Asp Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Met Trp
 20 25 30

Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45

Arg

<210> 27
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<400> 27

Ser Gln Leu Asp Leu Ser Gly Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15

Asp Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Met Trp
 20 25 30
 Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 28
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<400> 28
 Ser Arg Leu Asp Leu Ser Gly Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Leu Ser Arg Ala Arg Pro Arg Trp Phe Met Leu
 20 25 30
 Cys Leu Leu Leu Leu Ser Val Gly Val Gly Ile Tyr Leu Leu Pro Asn
 35 40 45
 Arg

<210> 29
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 Ser Arg Leu Asp Leu Ser Ser Trp Phe Val Ala Gly Tyr Ser Gly Gly
 1 5 10 15
 Asp Ile Tyr His Ser Val Ser His Ala Arg Pro Arg Trp Phe Met Leu
 20 25 30
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 Arg

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 Asn Leu Leu Leu Arg Arg Leu Lys Ile Leu Leu Met Thr Ala Val Gly
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 Val Ser Ser
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<213> Viral

<400> 34

Gly Arg His Tyr Glu Glu Leu Val Leu Ala Arg Lys Gln Phe Asn Asn
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 Phe Gln Gly Thr Asp Arg Tyr Asn Leu Gly Pro Ile Val Asn Met Val
 20 25 30
 Leu Arg Arg Leu Arg Val Met Met Met Thr Leu Ile Gly Arg Gly Val
 35 40 45